



The Intergovernmental Science-Policy Platform  
on Biodiversity & Ecosystem Services

2022年11月4日

森林総合研究所主催ウェビナー

# 自然とその恵みに関する 多様な価値観の概念化に関する 方法論的評価報告書

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#ValuesAssessment



Food and Agriculture  
Organization of the  
United Nations



- 
1. Assessment process
  2. Values of nature
  3. Valuation
  4. Uptake
  5. Values as opportunity
  6. 研究者向け着眼点



## Key Message #1

**The way nature is valued is one of the main drivers of the global biodiversity crisis.**

自然の市場価値ばかりを重視した  
現在の自然に関する価値概念とそれに基づいた意思決定が  
現在の生物多様性危機の基にある。

**It is also an opportunity to address it.**

自然に関する価値観は、この危機を抜けるための鍵でもある。



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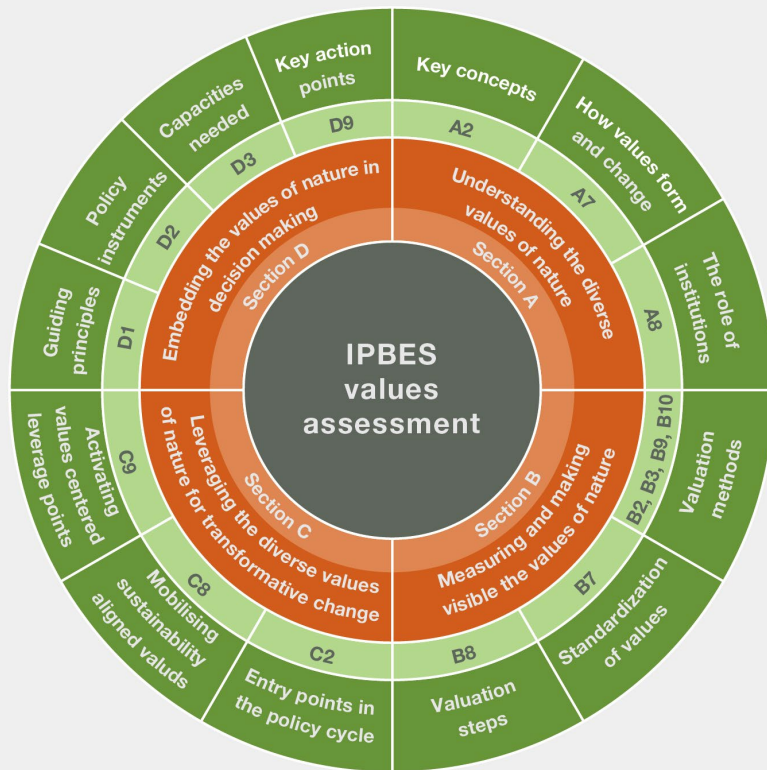
# Values Assessmentの章立て

Methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits, including biodiversity and ecosystem functions and services

1	<b>The role of the values of nature</b> and valuation for assessing the biodiversity crisis and navigating towards more just and sustainable futures	意義
2	<b>Conceptualizing</b> the diverse values of nature and their contributions to people	概念的枠組み
3	The potential of <b>valuation</b>	価値評価のHow-to
4	Value expression in <b>decision-making</b>	意思決定における価値概念
5	The role of diverse values of nature in visioning and transforming towards just and sustainable <b>futures</b>	将来像における価値概念
6	Policy options and capacity development to <b>operationalize</b> the inclusion of diverse values of nature in decision-making	Inclusivity. 実装のHow

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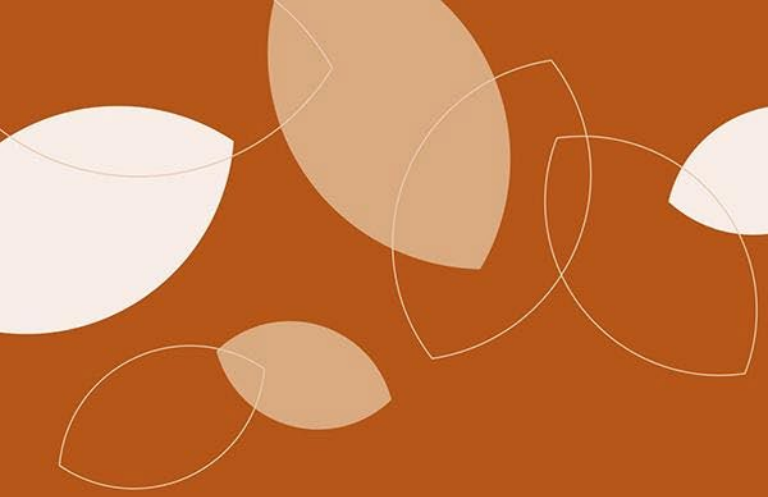




SPM background sections
  Background section topics
  Main SPM background messages

## SPM（政策者向け要約）の構成

- ◆ 10のキーマッセージ
- ◆ 4つのバックグラウンドメッセージ
  - それぞれにヘディング・サブヘディング・詳細
  - A) 自然の多様な価値の理解
  - B) 価値の測定と可視化
  - C) 持続可能性に向けた変革のための  
自然の多様な価値の活用
  - D) 持続可能性への変革的意思決定のための  
自然の価値の組み込み
- ◆ 信頼度のコミュニケーションに関する  
アペンディックス

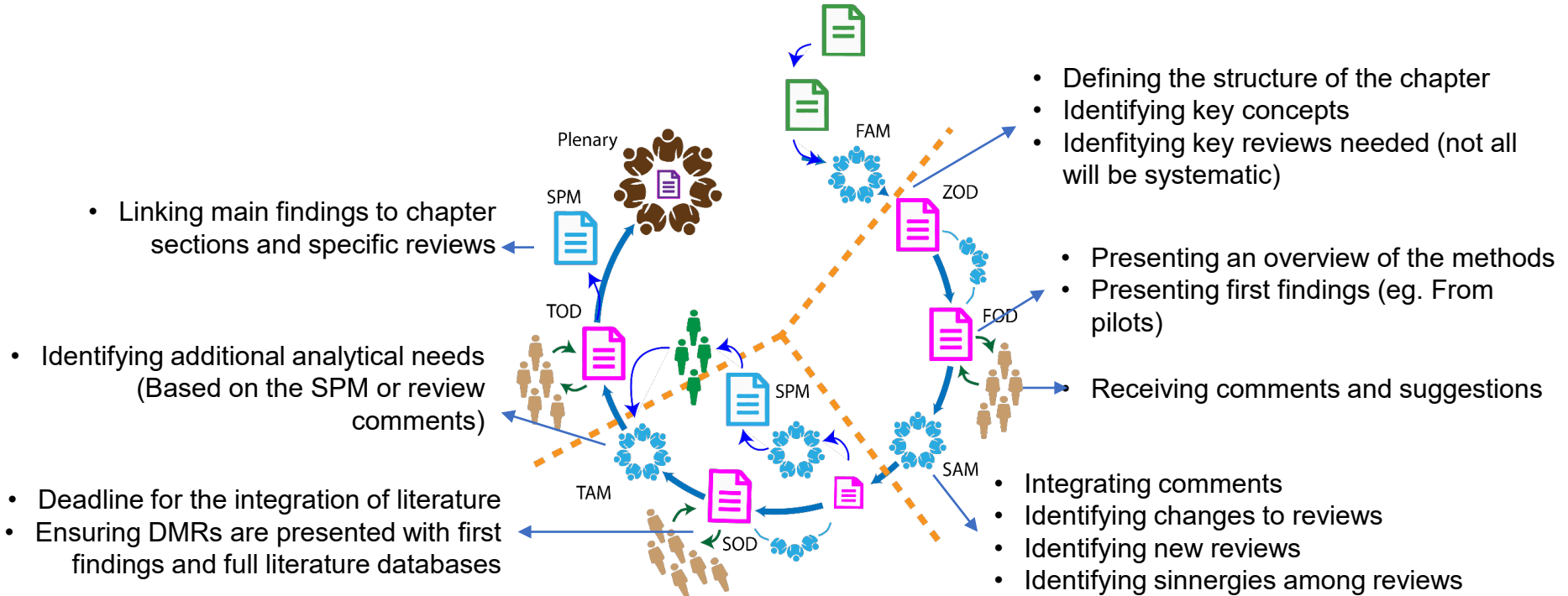


# 1

## ■ Assessment process



# IPBES Assessments





## ■ The process

- 3 Authors meetings (Mexico City, Vitoria-Gasteiz, online),
- 2 External reviews, and
- 1 Additional review by governments.
- In the context of COVID-19 pandemic.

## ■ Engagement with Indigenous and Local Knowledge (ILK)

- Liaison group,
- Identification of key guiding messages,
- call for contributions,
- ILK experts and holders as contributing authors, and
- 3 ILK dialogue workshops (Paris, Mexico, online).

## ■ The evidence behind

- + 13,000 documents reviewed in depth and,
- + 200,000 pieces of evidence considered.



- Result from **19 years** of in-kind voluntary contributions **by more than 300 people**:
  - **95 Experts** nominated by IPBES (18 ILK experts/holders) from **47 countries**,
  - **+ more than 200 contributing authors** (25 ILK experts/holders).
- **Diverse disciplines represented.**
- Supported by a **Management Committee.**
- **Technical Support Unit** based in Mexico (Ecosystems and Sustainability Research Institute of the National Autonomous University of Mexico).







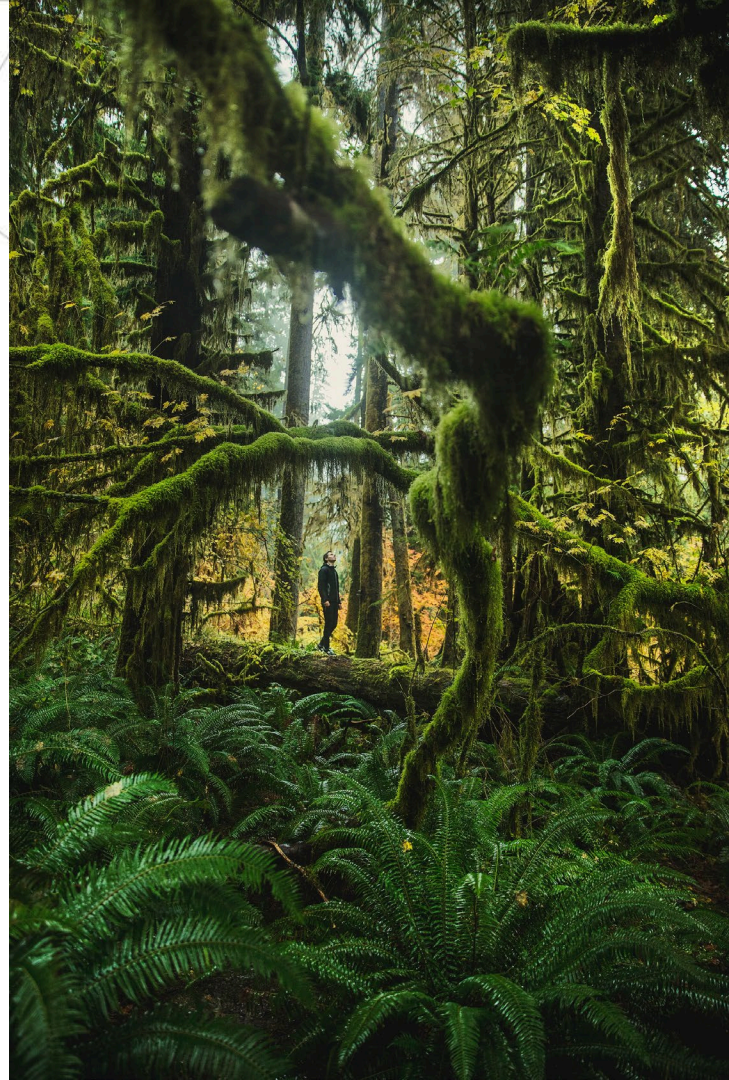
# 2 ■ Values of nature





**Over millennia, around the world,  
people have developed many ways of  
understanding and connecting with  
nature, leading to a large diversity of  
values of nature and its contributions  
to people.**

長い年月を経て、地球上の様々な地域で  
自然との関わりや自然の捉え方は様々に発達し  
自然とその恵みの価値観は大変多様である。



## Key Message #2

# Economic and political decisions have predominantly prioritised market-based instrumental values of nature.

経済・政策決定は市場に基づいた手段的価値を優先してきた。

- **Predominant economic and political decisions have prioritized market-based instrumental values ignoring non-market instrumental, relational and intrinsic values.**

短期的な利益や経済成長が優先されその他の多くの価値が無視されることが多い。

- **Conservation policies also risk downplaying the values of local communities that depend on nature for their livelihoods.**

自然保護政策は、自然を生活の糧としている地域社会の価値を軽んじる危険性がある。





# 3. Valuation





Type of approaches	Type of sourcing	Evidence selection	Analysis and output
<b>Review of method families<sup>7</sup></b>	State-of-the-art review	Aims for comprehensive searching of current literature about valuation methods and approaches	Current state of knowledge, overview of challenges and debates
<b>Review of reviews<sup>8</sup></b>	Umbrella review	Qualitative assessment of existing reviews of valuation methods (based on both primary studies and grey literature)	Research gaps (what remains unknown), recommendations to improve the elicitation of values
<b>Systematic review of methods applications<sup>9,10</sup></b>	Systematic in-depth review	Aims for exhaustive, comprehensive searching of reported valuation experiences	What valuation experience can reveal about methods and how it can inform recommendations for practice
<b>Thematic reviews<sup>11</sup></b>	State-of-the-art review	Aims for comprehensive searching of current literature on specific themes deemed relevant to valuation	Current state of knowledge of specific themes; trends, caveats and unresolved issues in valuation of nature
<b>ILK dialogues<sup>12</sup></b>	Contributions by ILK-holders in dialogues organised with IPBES ILK liaison group; documented in reports	Aims for complementary evidence on valuation from IPLC perspectives	Findings on IPLC perspectives, adaptations in chapter conceptual and analytical framework, search terms and analysis criteria for other reviews
<b>Consultations with ILK experts<sup>13</sup></b>	Written responses to questions, accompanied by other material, discussion via phone, email and in-person	Aims for complementary evidence on valuation by IPLCs for IPLC purposes	Content analysis and narratives to better describe IPLC valuation

## Review methodology for assessment of valuation methods

自然の価値評価に関する  
レビューを複数実施





## There is no shortage of methods and approaches to value nature.

自然の価値評価の方法・手段は十分にある




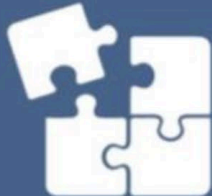

### Key Message #5

Over 50 different methods to assess nature's values have been applied in diverse social- ecological contexts around the world

50以上の方法論が  
様々な自然社会環境でこれまで活用されてきた

# The large portfolio of valuation methods, originating from diverse disciplines and knowledge systems, can be grouped into four non-disciplinary method families.

価値評価の方法は、4つに分類される：自然に基づく評価・声明に基づく評価・行動に基づく評価・統合評価

Valuation method families					Considerations for valuation by IPLCs
	Nature-based valuation	Statement-based valuation	Behaviour-based valuation	Integrated valuation	
					
Examples of methods and approaches	Biodiversity inventory, ecosystem services mapping, Delphi method, participatory mapping of ecological values	Group discussions, Q-methodology, contingent valuation, choice experiments, deliberative methods	Participant observation, travel cost method, cost-based methods, hedonic pricing, livelihood dependence, photo-series analysis	Ecosystem service valuation, cost-benefit analysis, multi-criteria decision analysis, integrated modelling, scenario building, deliberative decision methods	特定の知識体系による評価

Source of information

How information is generated

Types of values

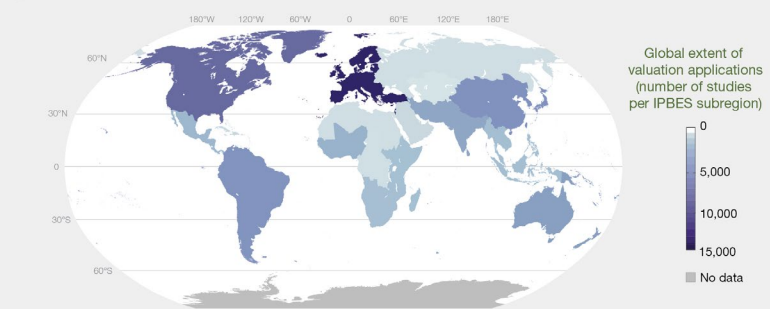
Stakeholder inclusion



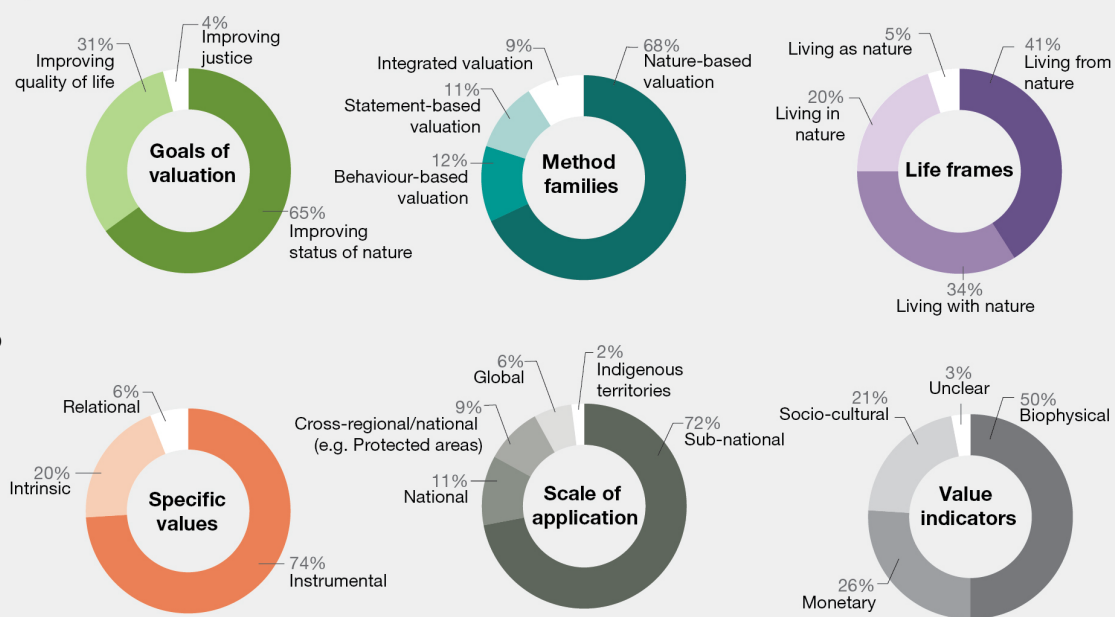
Different valuation methods and approaches can assess different types of values of nature; however, challenges emerge when comparing different values to inform decision-making.

自然の様々な価値は、様々な手段で評価できる  
しかし意思決定のために  
その様々な価値を比較する段階に課題がある

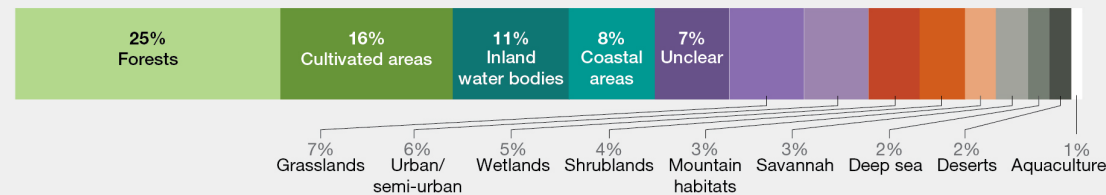
A Global distribution of valuation studies



B Characterization of nature valuation studies reported



C Habitats in which valuation was applied

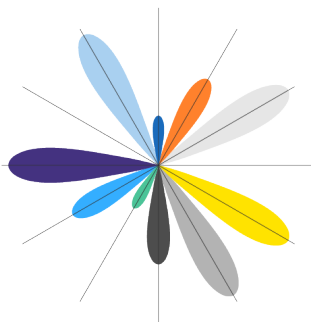


# Incorporation of the diverse values in decisions, requires considering whether and how values can be directly compared, made compatible, or be considered in parallel.

多様な価値を意思決定に取り込むには、  
それらの価値が直接比較できるものか、両立できるか、平行して検討できるか、  
検討しなくてはならない



Costs vs. benefits



- Health
- Education
- Physical Security
- Water
- Respect
- Autonomy
- Shelter
- Food
- Economic Security
- Participation
- Sanitation
- Relationships

Bundles of benefits from nature



Instrumental values (e.g. jobs) vs relational values (e.g. sacred sites)

# 4. Uptake





## Key Message #6

# Uptake of valuation into decisions remains limited.

Less than 5% of published valuation studies report uptake in policy decisions.

評価研究のうち、政策決定への取り込みを報告しているものは5%未満である。



**Ignoring, excluding or marginalizing local values often leads to socio-environmental conflicts linked to value clashes, especially in the context of power asymmetries, which undermines the effectiveness of environmental policies.**

現場の価値観を無視、排除、疎外することは、特に力の非対称性の中で、価値観の衝突に結びついた社会環境紛争を引き起こすことが多く、環境政策の有効性を損なうことになる。

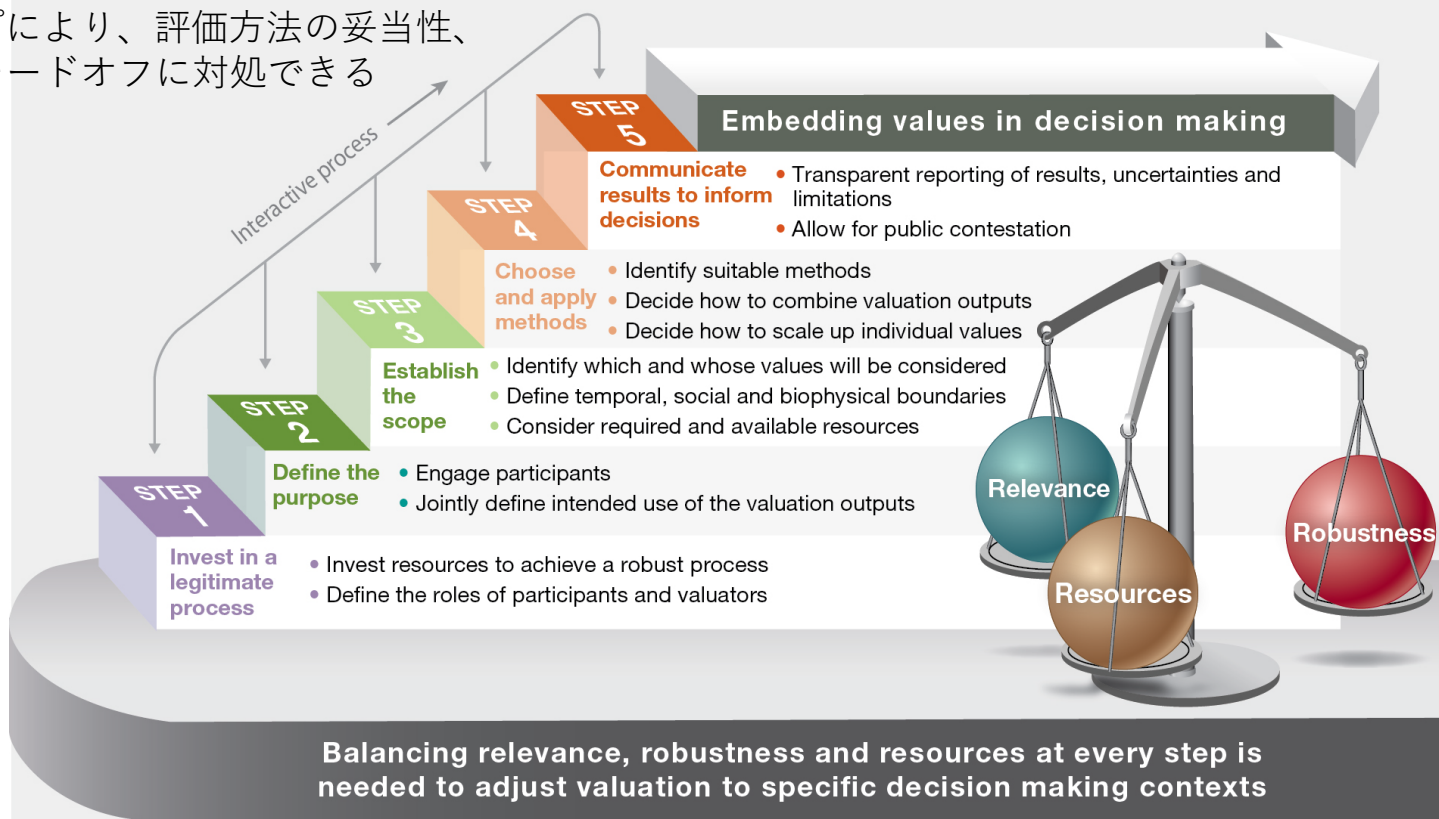
**Indigenous peoples and local communities who can be directly connected with and dependent on nature bear a disproportionate burden from changes in rights to access or use of nature.**

自然と直接かかわりながら生きることのある先住民族やローカルコミュニティが自然へのアクセスや利用に関する権利の変化による負担を過度に負わされている。



# Valuation processes can follow five iterative steps to address the trade-offs between the relevance, robustness and resource requirements of valuation methods

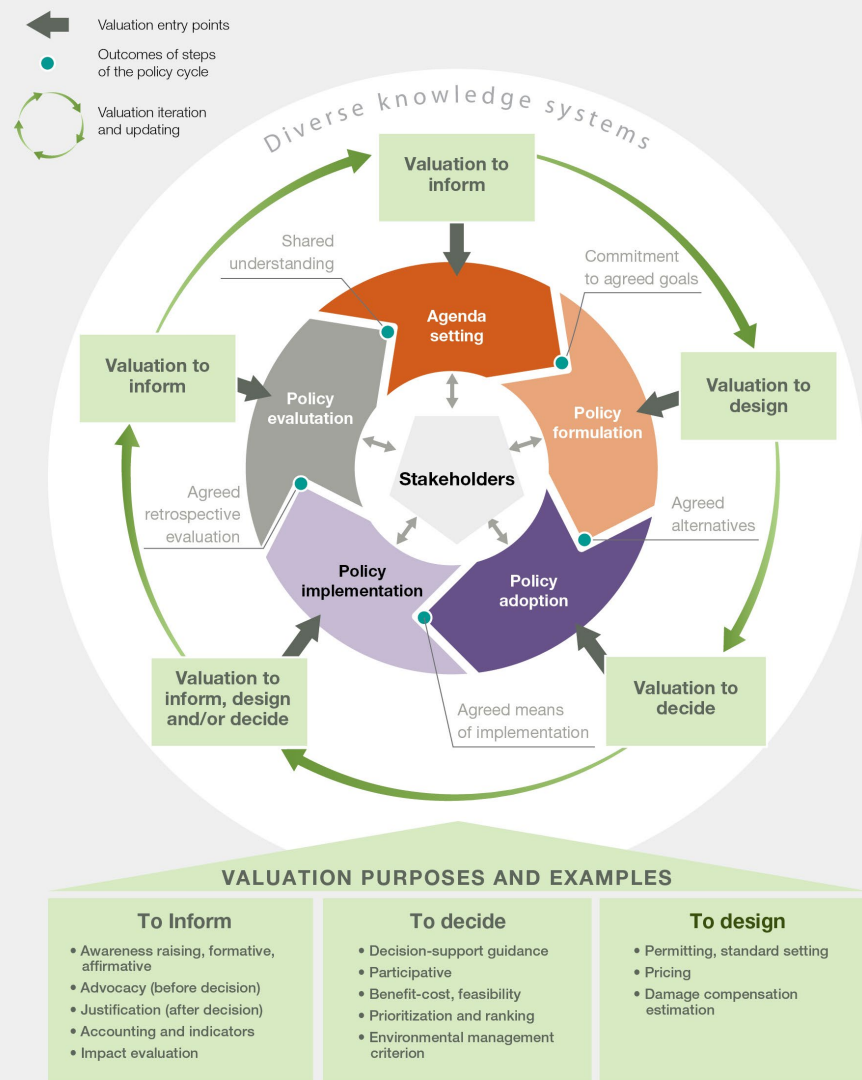
5つの反復的なステップにより、評価方法の妥当性、頑健性、資源要求のトレードオフに対処できる

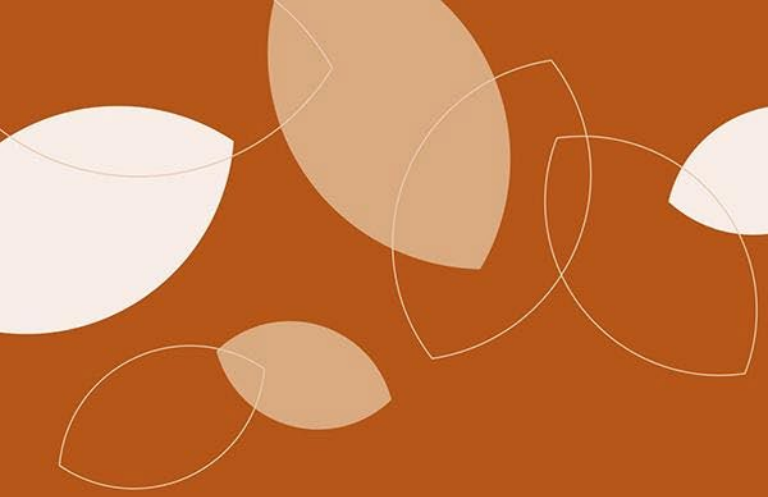




# Valuation can support policymaking across the different stages of the policy cycle

評価の実施は政策過程の様々な段階に寄与しうる





# 5. Values as opportunity

ipbes

## More equitable and sustainable policy outcomes are more likely to be achieved when decision making processes:

公平で持続可能な政策結果が  
より得られやすいのは意思決定過程で

- **recognize and balance the representation of the diverse values of nature**  
自然の様々な価値の表明が認識・バランスされ
- **address social and economic power asymmetries among actors.**

関係者間の社会的・経済的  
力の不均衡が対処されている際





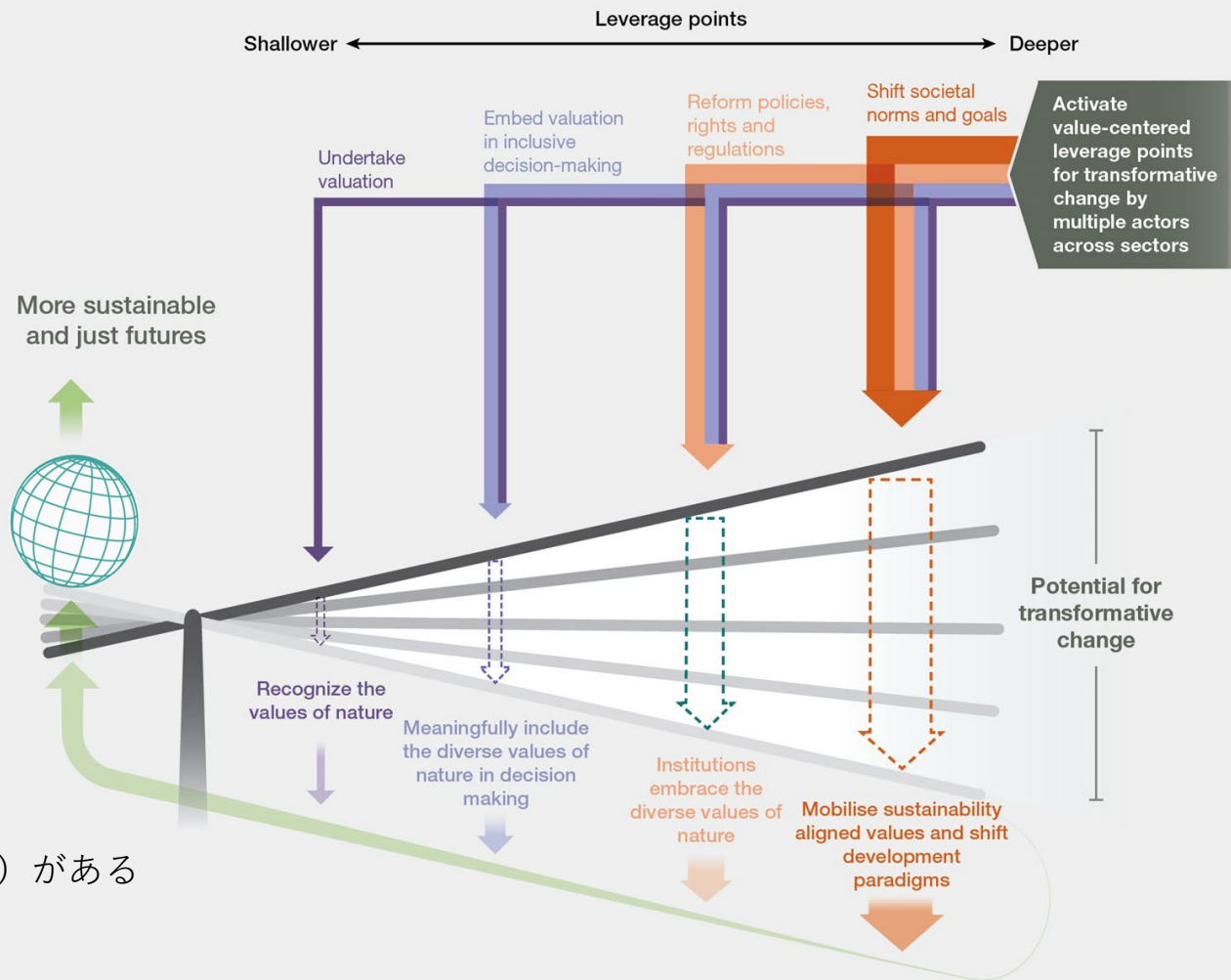
# Mobilising sustainability-aligned values involves empowering civil society and changing societal structures and institutions.

持続可能性に属する価値観を誘発するには  
市民社会のへの権限付与と  
社会的構造や制度の変革が必要とされる



**Key Message #9**  
**Four key leverage points can help catalyze transformation towards sustainable and just futures.**

持続可能で公正な未来に向けた  
社会変革を触発できる  
4つの介入点（レバレッジポイント）がある



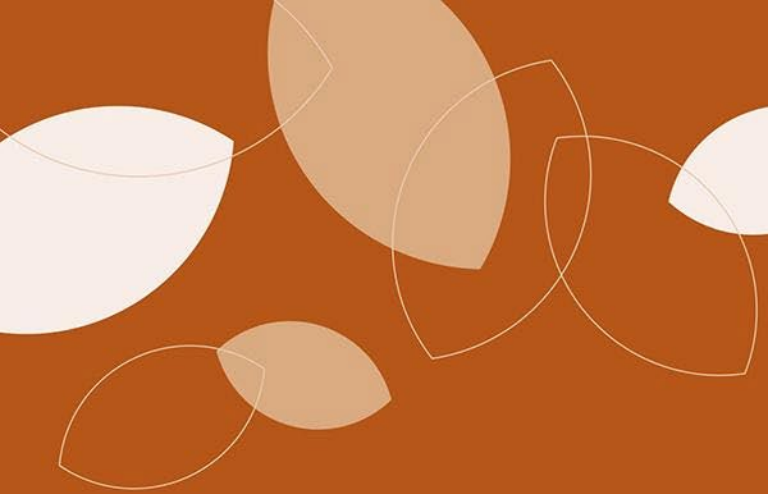
## Key Message #10

**Capacity building and collaborations among a wide range of stakeholders can facilitate transformative change to address the current biodiversity crisis.**

能力開発と幅広いステークホルダー間の協力は生物多様性危機に対処するための変革的な変化を促進することができる。







# 6. 研究者向け着目点



# 研究者向け着目点 (独自解釈)

1. 価値概念の（新たな）整理
2. 価値評価方法の評価
3. Sustainability-aligned values
4. Inclusivity: Knowledgebases
5. Inclusivity: IPLCs
6. Gaps



# 1

## 価値概念の類型論

### Key Message #3

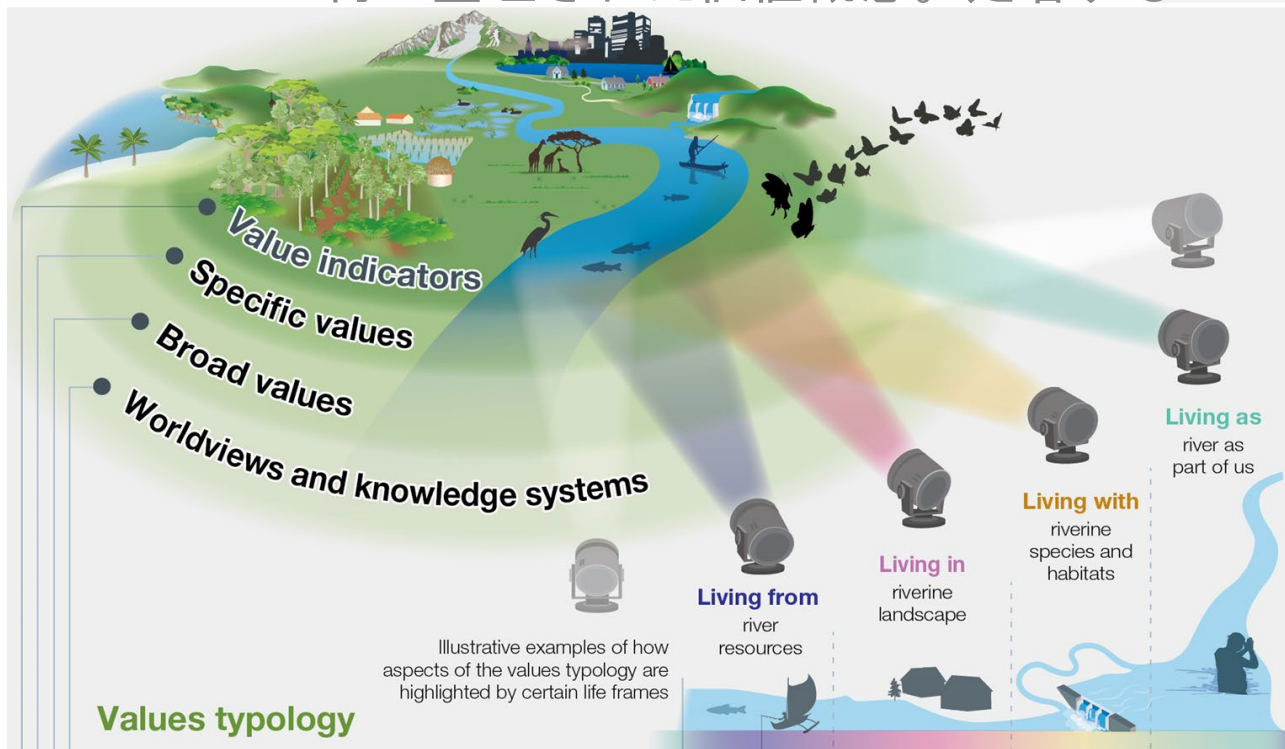
People value nature in different ways depending on their knowledge systems, languages, cultural traditions and environmental contexts.

人々は、知識体系、言語、文化的伝統、環境的文脈によって、さまざまに自然を評価しています。

**A novel typology of nature's values can help guide decisions.**

自然の価値の新しい類型論は、意思決定を導けます。

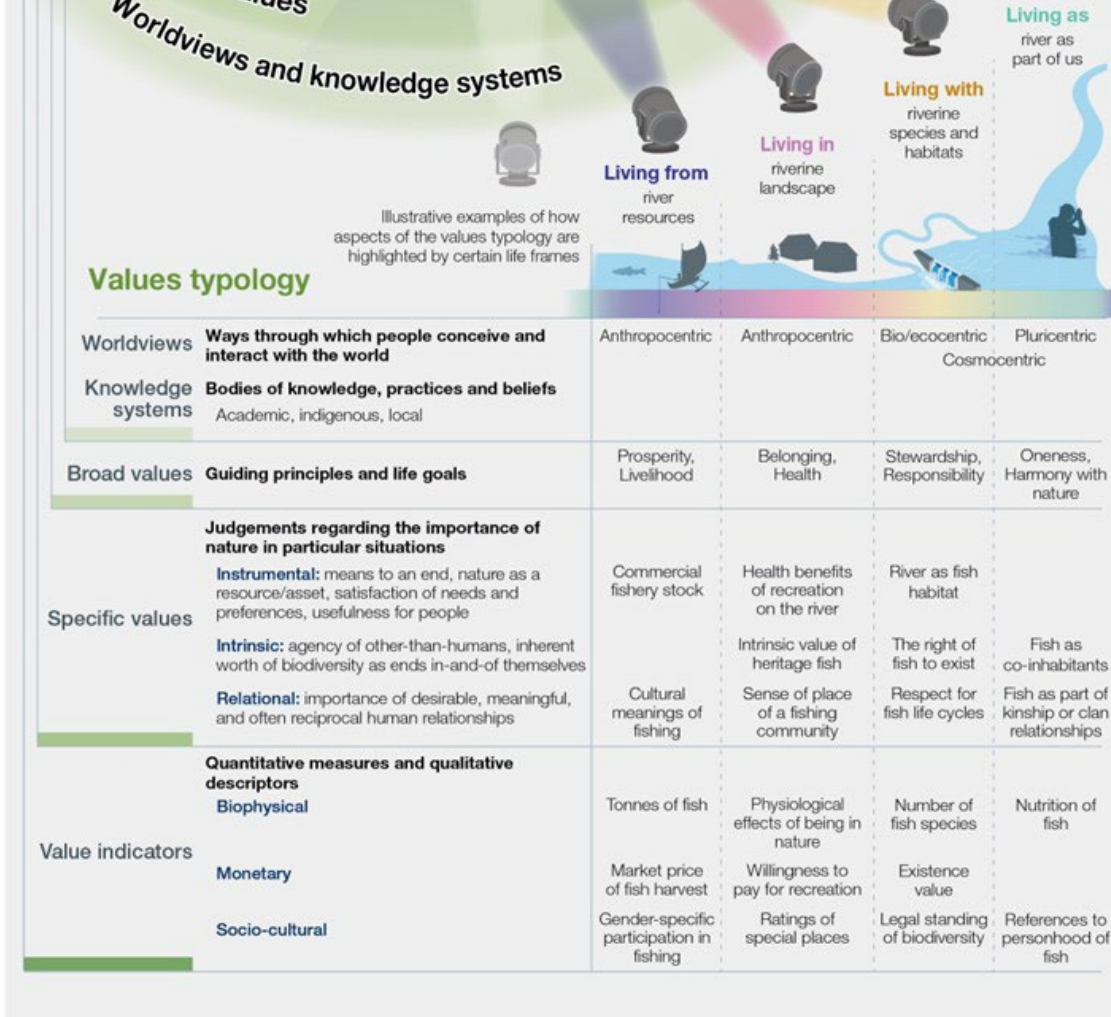
再・整理された価値概念。定着するか？





# 1

## 価値概念の類型論



Examples of valuation methods		Relevance Ability to elicit of diverse values in multiple socio-ecological contexts		Robustness Ability to ensure reliable (accurate and valid) and fair representation of stakeholders		Resources Affordability and ease of use		Level of confidence
		Diverse values	Diverse contexts	Reliability	Representation	Ease of implementation	Ease of operation	
Nature based valuation	Ecosystem services mapping	●	●	●	●	●	●	✓
	Biodiversity mapping	●	●	●	●	●	●	✓
Statement based valuation	Stated preferences	●	●	●	●	●	●	✓
	Q method	●	●	●	●	●	●	~
Behaviour based valuation	Revealed preference	●	●	●	●	●	●	✓
	Livelihood assessment	●	●	●	●	●	●	✓
Integrated valuation	Integrated modelling	●	●	●	●	●	●	~
	Participatory mapping	●	●	●	●	●	●	✓
Decision making tools based on integration of values	Cost-benefit analysis	●	●	●	●	●	●	✓
	Multi-criteria decision aid	●	●	●	●	●	●	✓
	Deliberative integration methods	●	●	●	●	●	●	~
Methods that do not elicit value information	Benefit transfer	●	●	●	●	●	●	~
Examples from valuation by indigenous peoples and local communities	Forest health monitoring (forest walks, territory patrols)	Capable individuals (i.e., human resources to conduct validation) are entrusted (i.e., assurance of robustness) to assess forest recovery using communally accepted indicators relevant for multiple uses by the community (i.e., representation and diverse values).						✓
	Community assemblies for deliberations	Community meetings to gather all members' opinions (including women's and children's) about nature (i.e., representation/robustness, relevance) and to jointly interpret the opinions and deliberate on how to move forward (i.e., capacities to conduct valuation). Community members are trusted to speak based on their knowledge and lived experiences (i.e., reliability).						✓

## 2 評価方法の評価

必要性（TPO）と意思決定者の価値観によって選択される

### Key Message #5

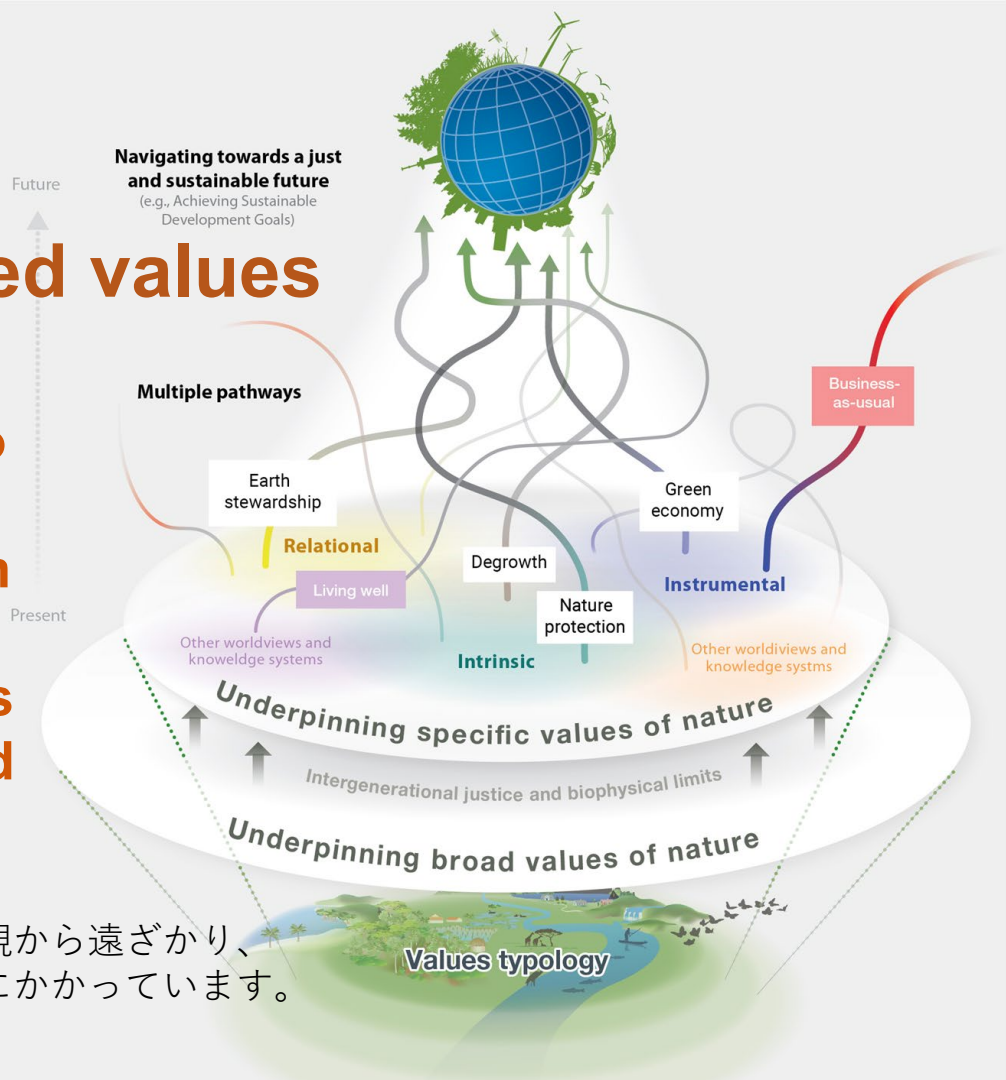
Methods differ in their relevance, robustness and resource requirement.

# 3 Sustainability-aligned values

## Key Message #8

**Transformative change needed to address the global biodiversity crisis relies on shifting away from values that over-emphasize short term and individual material gains to nurturing sustainability-aligned values across society.**

生物多様性危機への対処に必要な変革的变化は、短期・個人的な物質的利益を過度に重視する価値観から遠ざかり、社会全体に持続可能性に沿った価値観を育むことにかかっています。





# 3

## Sustainability-aligned values

「規範的（normative）」な価値観をエビデンスで裏付けた。

### Key Message #8

#### Sustainable

Harmony with nature

Broad values

- **Justice**
- **Stewardship**
- **Unity**
- **Responsibility**  
towards other  
people and  
towards nature

Specific values

- Relational  
values
- Intrinsic values
- Non-market  
instrumental  
values

#### Unsustainable

Currently predominant

Broad values

- Materialism
- Individualism

Specific values

- Market-based  
instrumental  
values



# 4 多様な知識：Grey literatureの活用

		Peer-reviewed literature	Gray literature
Stakeholders	Primary authors/contributors	Academics, experts in the field	Professionals, practitioners, planners, NGOs
	Primary target audience	English-reading academics	General public, policy makers, practitioners
Process	Timeliness	Slower (years)	Faster (months)
	Publication bias	Susceptible to biases towards positive results, and by author or affiliate characteristics e.g. country of origin.	Reports statistically nonsignificant results
	Quality	Blind peer-review: vetted by editors and reviewers, therefore regarded as having a consistent high quality	Varied
Format	Type of information/data	Analytical, synthesized	Practical, policy-relevant formats
	Structure	Standardized according to journal specifications and scholarly conventions	Varied, tailored to audience
	Language	Scientific, technical, prone to jargon	Varied, typically appropriate for general audience
Availability	Indexing	Scholarly databases	Limited or none
	Bibliography/	Yes	Varied

Yoshida et al. 2022  
Beyond Academia  
(preprint)

文献のレビューのうち

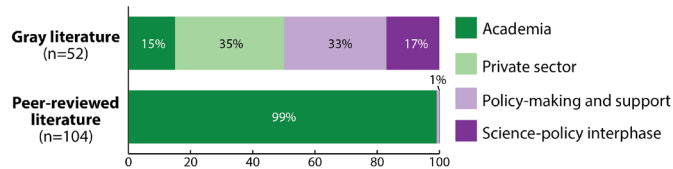
Peer-review

26件

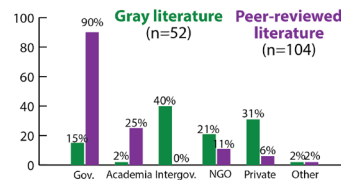
Grey literature

15件 (重複含め)

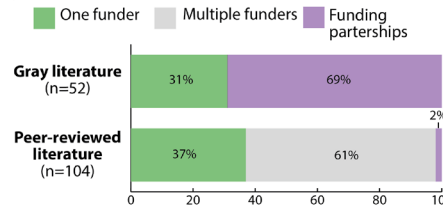
## a Sector of origin



## b Sponsorship



## c Funding body



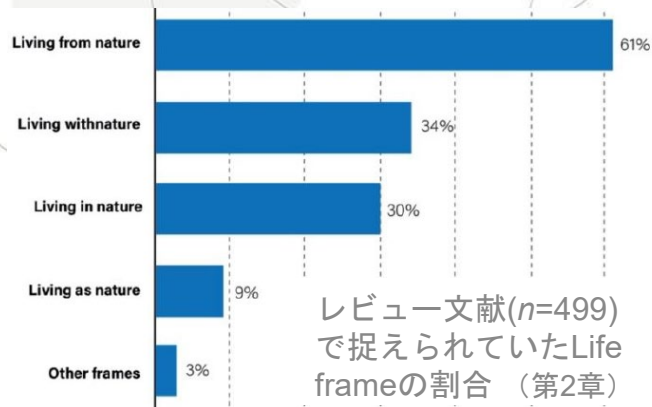
# 5 先住民族とローカルコミュニティ IPLCs

## Key Message #2

これまで疎外されてきた  
IPLCの世界観に基づいた自然の価値。

それらの取入れや、IPLCのEmpowermentに向けた  
Know-howのギャップ。

※他言語の文献にも言及。





# 6

洗い出された知識・実装に向けた

## ギャップ

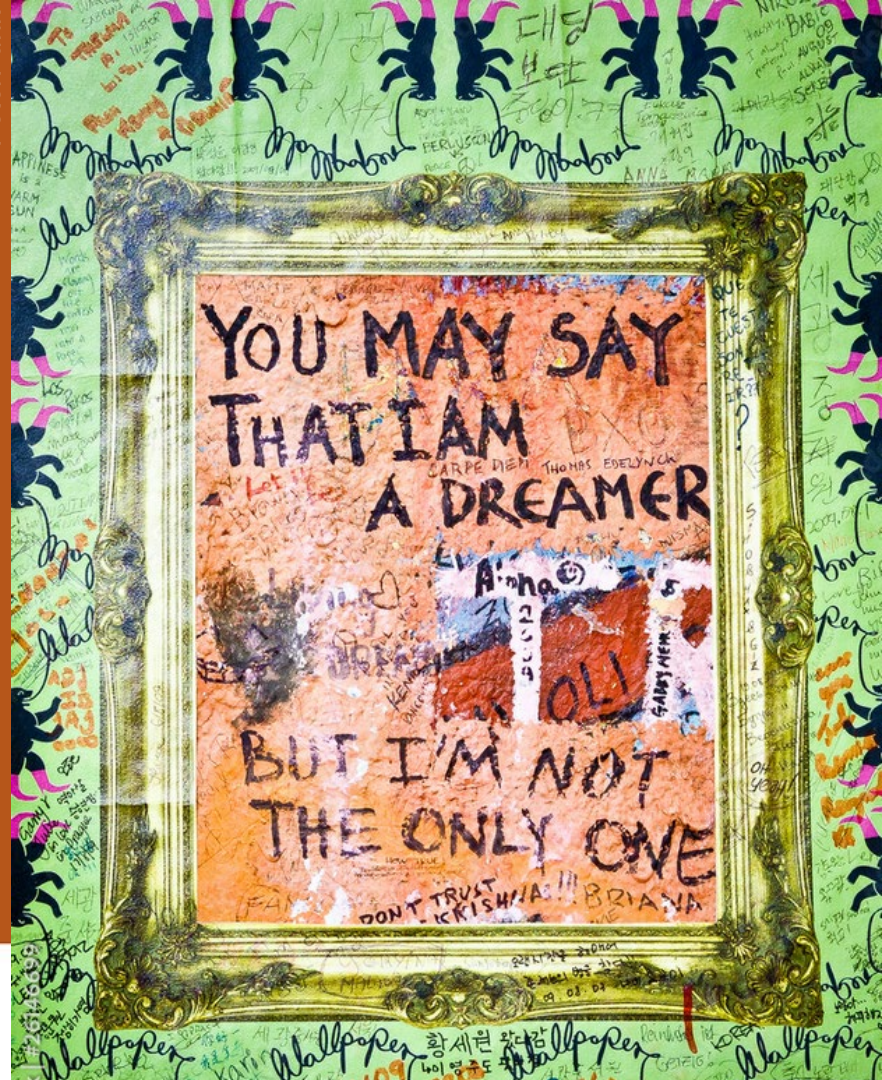
### Key Message #10

**Key knowledge and operationalisation gaps limit opportunities to effectively embed nature's diverse values in decision-making.**

Most pressing issues	Potential solutions
Conceptualisation of nature's diverse values	Document the diverse values of nature for different socio-demographic groups, social-ecological contexts, spatial and temporal scales, and knowledge systems
Choice of valuation methods to support decision-making	Design valuation processes to fit decisions that lead to specific outcomes
Understanding notions of 'value' and 'valuation' within indigenous peoples and local communities	Make visible the values of indigenous peoples and local communities in their own terms
Uptaking valuation results in decision-making	Document the uptake of valuation into decisions, the barriers and enablers of uptake, and the outcomes derived from uptake
Designing and operationalising policy tools that consider nature's diverse values.	Document best-practice policy tools and their transformative change potential
Considering values and valuation as leverage points for transformative change	Assess how institutions can better embrace nature's diverse values and how sustainability-aligned values can be further mobilized
Understanding the role of values in futures scenario planning and development	Document how nature's values play a role in future scenarios, and the role of sustainability-aligned values in shaping sustainability pathways
Considering justice perspectives in valuation	Analyse the role of power in value expression and how justice dimensions are influenced by valuation

**Diversity.  
Inclusivity.**

PeterPunk





## Key Message #7

# Achieving sustainable and just futures requires the recognition and integration of diverse values of nature into political and economic decisions.

持続可能で公正な未来を実現するためには、  
自然に対する多様な価値を認識し、  
政治や経済の意思決定に統合することが必要です。

**Recognising the values of local people  
affected by decisions results in better  
outcomes for people and nature.**

意思決定の影響を受ける  
地域の人々の価値を認めることが、  
人と自然にとってより良い結果をもたらします。







**ipbes**

**#ValuesAssessment**

**Thank you!**

**¡Gracias!**

**Merci!**